

Lebowitz, M.D., Holberg, C.J., Boyer, B., Hayes, C. "Respiratory Symptoms and Peak Flow Associated with Indoor and Outdoor Air Pollutants in the Southwest" Journal of the Air Pollution Control Association 35(11): 1154-1158, 1985.

SUMMARY: A symptom-stratified, geographic cluster sample of 117 middle class households was studied. Symptom daily diaries and peak flows were obtained for 211 subjects over a two-year period. Indoor sampling in a sample of houses was performed for O<sub>3</sub>, TSP, RSP, CO, temperature (T), and relative humidity (RH). Questionnaires determined type of stove and number of smokers in all households. Ambient pollutants (O<sub>3</sub>, TSP, CO, NO<sub>2</sub>), were monitored in or near the clusters, as were T and RH. Smoking in the household was significantly correlated with TSP and RSP. Indoor CO was significantly correlated with gas stove usage. Normal young adults under age 25 had daily peak flows (PEF) associated with outdoor O<sub>3</sub> after adjusting for other factors). Asthmatics' PEF was associated with smoking, gas stove use and outdoor NO<sub>2</sub>, and with outdoor O<sub>3</sub> and temperature, after controlling for other factors. Indoor and outdoor factors affected asthmatic symptoms, after controlling for age, sex, smoking and other ambient environmental variables.

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